Personal Data

| Family Name: |  |
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| Given Name: |  |
| Signature: |  |
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Please mark the boxes carefully: $\backslash$ Not marked: $\square$ or
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Answers 1-2


1. (1 point) A box contains 15 green and 10 yellow balls. If 10 balls are randomly drawn,one-by-one, with replacement, then the variance of the number of green balls drawn is :
(a) $6 / 25$
(b) 4
(c) $12 / 5$
(d) 6
2. (1 point) An observer is moving with half the speed of light towards a stationary microwave source emitting waves at frequency 10 GHz . What is the frequency of the microwave measured by the observer ?(speed of light $3 \times 10^{8} \mathrm{~m} / \mathrm{s}$ )
(a) 12.1 GHz
(b) 15.3 GHz
(c) 17.3 GHz
(d) 10.1 GHz
